聚合物的热压力系数及内压

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摘要　　本文将我们在前文中提出的修正van der Waals模型, 推广到了液态聚合物中,
从而建立了一个能在宽阔温度范围内准确计算聚合物热压力系数的关系式。式中v和M分别为聚合物的比体积和链节的摩尔质量,
A为聚合物的特性常数。对于本文考察的五种聚合物, 发现它们的链节大小均为聚合物的三个结构单元。

关键词　　高聚物　内压　热压力系数　VAN DER WAALS模型

分类号　　O642　　O631.3

Thermal pressure coefficient and internal pressure for polymers

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Abstract The modified van der Waals' model suggested by our previous work is extended to the liquid polymers in this paper. A relation between the thermal pressure coefficient and the density of polymer, which can be used to calculate the thermal pressure coefficients of polymers accurately at the wide range of temperature, is established. where v and M are the specific volume of polymer and the molar mass of a segment respectively, and A is the characteristic constant. It is found that the size of a segment is about equal to three structural units for five polymers examined.

Key words　HIGHPOLYMER　INTRINSIC PRESSURE

DOI:

通讯作者